a plurality of data acquisition lines each of said plurality of data acquisition lines connected to a separate sensor for each testing station;

a plurality of control lines each of said plurality of control lines connected to a second component of separate heat pumps; and

a control device which receives test data through said data acquisition lines and transmits control data over said control lines.

8. (Amended) A test system for simultaneously testing a plurality of heat pumps, comprising:

an array of testing stations, wherein each of said testing stations includes at least one heating means attached to a first component of a heat pump for providing a heat load to said heat pump and wherein each of said testing stations includes at least one sensor means coupled to a heat pump to generate test data;

a plurality of data acquisition connection means each of said plurality of data acquisition connection means connected to a separate sensor means for each testing station;

a plurality of control connection means each of said plurality of control connection means connected to a second component of separate heat pumps; and

a control means which receives test data through said data acquisition connection means and transmits control data over said control connection means.

13. (Amended) A method of testing a plurality of heat pumps, simultaneously comprising the steps of:

providing a first control signal to a first component of a plurality of heat pumps to operate a function of said heat pumps;

providing a second control signal to a plurality of heating elements, said heating elements placing a head load on said heat pumps;

receiving data from a plurality of sensors coupled to said heat pumps; and

comparing said received data to accepted performance parameters for said heat pumps.